

## REMARKS / ARGUMENTS

### **I. General Remarks**

Please consider the application in view of the following remarks. Applicants thank the Examiner for his careful consideration of this application.

### **II. Disposition of Claims**

Claims 1-4 and 8-25 are pending in this application. Claims 26-87 were previously cancelled in response to a restriction requirement. Claims 5-7 have been cancelled herein.

In this response, claims 1, 4, 14, 18-20, and 25 have been amended. These amendments are supported by the specification as filed.

Claims 4, 5, 14, 18-20, and 25 stand rejected under 35 U.S.C. § 112. Claims 1-25 stand rejected under 35 U.S.C. § 103(a).

### **III. Rejections of Claims**

#### **A. Rejections of Claims Under 35 U.S.C. § 112**

Claims 4, 5, 14, 18-20, and 25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (*See* Office Action at page 2.) Specifically, the Office Action states that these claims are deemed indefinite for being drawn to improper Markush groupings. *Id.* Although Applicants maintain that the original language of the claims was sufficiently definite, Applicants have amended each of these claims that are still pending in this Response to conform with the Examiner's wishes. Applicants' originally filed claims were sufficiently definite because a Markush grouping "may be recited in a conventional manner or alternatively," so long as the alternative language "present[s] no uncertainty or ambiguity with respect to the question of scope or clarity of the claims." MANUAL OF PATENT EXAMINING PROCEDURE § 2173.05(h) (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

#### **B. Rejections of Claims Under 35 U.S.C. § 103(a)**

##### **1. Rejections Over U.S. Patent No. 4,387,769**

Claims 1-11 and 15-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,387,769 to Erbstoesser *et al.* ("Erbstoesser"). With respect to the rejection of claim 1, the Office Action states:

Erbstoesser et al discloses a process of fracturing a subterranean formation with a fracturing fluid comprising a fluid loss agent which comprises a degradable material, such as a polylactide. Insofar as such degradable material of Erbstoesser et al corresponds to the degradable material, such as polylactide or polylactic acid, utilized in the fracturing method of claims 1, 3, 4 and 5, it is deemed that such degradable material of Erbstoesser et al will inherently or necessarily also be "deformable". Further with respect to claim 1, although a "viscosifier" for the fracturing fluid is not explicitly set forth, Erbstoesser et al discloses that the fracturing fluid may "contain other components, additives, and the like known to those skilled in the art". Accordingly, "judicial notice" is taken that such conventional additives in the fracturing art would include or encompass a viscosifier. Thus, to employ a viscosifier in the fracturing fluid injected in the process of Erbstoesser et al would have been an obvious matter of choice or design, in order to ensure the formation fracturing will occur, and to the extent desired.

(Office Action at page 3.)

To form a basis for a § 103(a) rejection, a prior art reference must teach or suggest each element in the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2142 (2005). In this response, Applicants have amended claim 1 to require that the deformable degradable material is selected from the group consisting of polysaccharides, chitins, chitosans, proteins, poly( $\epsilon$ -caprolactones), poly(hydroxybutyrate), polyanhydrides, aliphatic polycarbonates, poly(orthoesters), poly(amino acids), poly(ethylene oxides), poly(phosphazenes), and combinations thereof. However, *Erbstoesser* does not teach a deformable degradable material that comprises any of these materials. The only degradable materials taught or suggested by *Erbstoesser* are polylactides, crosslinked polylactides, polyesters, and copolymers thereof. (See *Erbstoesser* at col. 3, ll. 4-7, col. 5, ll. 32-48, col. 6, ll. 9-16.) Thus, because *Erbstoesser* does not teach or suggest any of the deformable degradable materials listed in claim 1, as amended herein, *Erbstoesser* cannot obviate this claim.

Therefore, Applicants respectfully assert that claim 1, as amended herein, is allowable over *Erbstoesser*. Moreover, since "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers," and since claims 2-4, 8-11 and 15-25 depend, either directly or indirectly, from independent claim 1, these dependent claims are allowable for at least the same reasons. See 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

**2. Rejections Over *Erbstoesser* in View of U.S. Patent No. 5,032,297**

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Erbstoesser* in view of U.S. Patent No. 5,032,297 to Williamson *et al.* ("Williamson"). With respect to these rejections, the Office Action states:

*Erbstoesser et al* (note col. 4, lines 51-56) discloses that another fluid loss control agent may be included in their fracturing fluid in conjunction with their degradable polyester/polylactide fluid loss agent. *Williamson et al* (note col. 1, lines 50-68) discloses an exemplary fluid loss agent comprising a starch-based polymer, i.e., a starch or modified starch compound.

Accordingly it would have been obvious to one of ordinary skill in the art to which the invention pertains, to include a starch-based polymer fluid loss agent in admixture with the polyester fluid loss agent in the fracturing fluid injected in the process of *Erbstoesser et al*, as taught by *Williamson et al*, in order to enhance the overall fluid loss control effected during the fracturing operation, as called for in claims 12-14. Further with respect to claim 13, since both the polyester/polylactide and starch-based fluid loss agents of *Erbstoesser et al*, as modified, correspond to that of applicant's claims, it follows that such fluid loss agent(s) will then inherently or necessarily also be "deformable" and thus "obstruct the pores in the formation".

(Office Action at pages 4-5.)

To form a basis for a § 103(a) rejection, a combination of prior art references must teach or suggest each element in the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2142 (2005). However, as discussed in Section III.B.1. above, *Erbstoesser* does not teach or suggest any of the degradable deformable materials listed in claim 1, as amended herein. Nor does *Williamson* teach or suggest any of these degradable deformable materials. Rather, *Williamson* only discloses the use of certain starches as fluid loss control additives. (See *Williamson* at col. 1, ll. 50-67.) Therefore, since neither *Erbstoesser* nor *Williamson* teaches any of the degradable materials listed in claim 1, as amended herein, the combination of *Erbstoesser* and *Williamson* cannot obviate claim 1. Since claims 12-14 depend, either directly or indirectly, from claim 1, these dependent claims also incorporate these limitations that neither *Erbstoesser* nor *Williamson* teaches or suggests, and are thus similarly allowable. See 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

**SUMMARY**

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with this filing of this Response. However, should the Commissioner deem that any additional fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300.

Respectfully submitted,



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